

REMARKS

Reconsideration of the subject patent application is respectfully requested.

Claim 8 has been amended herein to correct a lack of antecedent basis.

Claims 1-10 and 12-26 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over *Converse*, U.S. Patent Number 3,938,377, in view of *McCarthy*, U.S. Patent Number 6,712,045. Claim 11 is rejected under 35 U.S.C. § 103(a) as being unpatentable over *Converse* and *McCarthy* in view of *Armstrong*, U.S. Patent Number 5,461,908. For at least the following reasons, applicants traverse these rejections.

Each of applicants' independent claims 1, 10 and 21 require, in some form, controlling fuel pressure within the fuel collection unit to a target fuel pressure near a maximum allowable fuel collection unit pressure level while maintaining low engine load, or, as in the case of claim 21, while maintaining engine load within a range of low engine loads. In contrast, none of the references of record, either alone or in combination, teach or suggest this feature.

Converse discloses a system for hot testing stationary automobile engines prior to installation in motor vehicles. The *Converse* system samples engine exhaust gas at various engine speed and load conditions, and then analyzes the sampled gases for their hydrocarbon (HC) and carbon monoxide (CO) levels. Nowhere does *Converse* describe, teach or suggest testing a high pressure fuel collection unit, or controlling fuel pressure within any such fuel collection unit.

The Examiner appears to cite the *Converse* reference for teaching testing of stationary engines under various load conditions, and attempts to read the stationary vehicle limitation into applicants' claims. In particular, the Examiner interprets

applicants' claim term "low engine load", ostensibly in view of applicants' specification, as requiring the vehicle to be stationary. This is an incorrect reading of applicants' claims. None of applicants' claims recite any limitation requiring a vehicle or requiring any such vehicle to be stationary, and it is impermissible to read such limitations into applicants' claims. However, even if it was permissible to do so, applicants' specification is inconsistent with the Examiner's interpretation. For example, at p. 11, lines 21-25, applicants' specification reads "[i]n one embodiment, VS_{TH} is set to zero to determine whether the vehicle is or is not moving. Alternatively, the vehicle speed threshold, VS_{TH} , may be set to some other positive vehicle speed threshold value in cases where the vehicle speed may be allowed to move during leak testing of the fuel system. Applicants' specification thus teaches conducting leak testing of the fuel system when the vehicle is stationary or when the vehicle is moving. Accordingly, applicants' claim term "low engine load" cannot be read to require the vehicle carrying the engine to be stationary. In view of the foregoing, Converse appears to be limited to its teaching of engine exhaust gas testing at various engine speed and load conditions, none of which is relevant to applicants' pending claims.

McCarthy describes a fuel control system configured to estimate fuel leakage in the form of a spilled fuel amount, to then determine a quantity of fuel pumped based on the spilled fuel amount and an injected fuel amount, and then to control fuel rail pressure based on the quantity of fuel pumped. The spilled fuel estimate may be determined based on current fuel rail pressure and current engine speed, or may be determined as a combination of a spilled control quantity and a leakage quantity, wherein the leakage quantity corresponds to the amount of fuel leaked past the internal

passages inside the injectors. However, *McCarthy* makes no mention of controlling the fuel rail pressure to a maximum allowable fuel rail pressure while maintaining low engine load, as required by applicants' claims. In fact, *McCarthy* teaches away from this feature by specifically teaching modification of the fuel rail pressure based on the result of the fuel leakage test, or, in other words, after the fuel leakage test, which estimates the spilled fuel amount, is conducted.

From the foregoing, it should be apparent that neither *Converse* nor *McCarthy*, nor the combination thereof, teach or suggest each of the limitations of applicants' independent claims. Claims 2-9 ultimately depend from claim 1, claims 11-20 ultimately depend from claim 10, and claims 22-26 ultimately depend from claim 21, and these claims are believed to be patentably distinct from any one or combination of the references of record for at least the reasons stated hereinabove.

Applicants have traversed all claim rejections, and claims 1-26 are believed to be in condition for allowance. The Examiner is cordially invited to contact the undersigned by telephone to discuss any unresolved matters.

Respectfully submitted,



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